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ABSTRACT

This paper focuses on the "Understanding Goals" element from the "Teaching for Understanding" framework. The study featured a one-year study program covering colonial America and integrating history, English, anthropology, geography, and the arts. The paper presents: (1) a definition of "Understanding Goals"; (2) a story of how one teacher came to use the principles of "Understanding Goals"; and (3) the value of "Understanding Goals." The instructor learned the "Teaching for Understanding" framework over two years while teaching seventh grade in an independent school in Cambridge, Massachusetts. (Author/EH)

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Understanding Goals: Teaching the Humanities for Understanding in Middle School

By

Lois Hetland

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AERA Annual Meeting, April 8-12, 1996, New York City
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Understanding Goals: Teaching the Humanities for Understanding in Middle School

by
Lois Hetland

Abstract:

Lois Hetland learned the Teaching for Understanding framework over two years while teaching seventh grade at the Shady Hill School, an independent school in Cambridge, MA. Her curriculum was a year long study of Colonial America that integrated history, English, anthropology, geography, and arts. This paper, which focuses on the element of the Teaching for Understanding framework called "Understanding Goals," explores three ideas: 1) what Understanding Goals are, 2) a story of how one teacher came to use them, and 3) the value of Understanding Goals.

I. What are Understanding Goals?

Understanding Goals are statements or questions that focus instruction on what teachers feel is most important for students to learn. The Teaching for Understanding (TfU) framework recommends that they be stated explicitly and posted publicly. They are necessary because the process that the framework recommends for developing understanding--active, reflective doing, over time, around fascinating, important topics--is inevitably complex and multifaceted. Understanding Goals help teachers and students stay focused intentionally during that rich process.

Understanding Goals can be designed in an array of sizes, but often teachers learning the framework focus on two. The Overarching size lasts for the length of a course or a school year. I have called these "Throughlines," after Constantine Stanislavski of the Method Acting School. Figure 1 shows my first effort at producing Throughlines for use in my classroom. In hindsight, I think that there are too many--I would recommend four to six for middle school grades, or fewer, if possible.

The Unit-level size lasts for the length of one Generative Topic. Teachers generally create three to six per unit, but that is merely a rule of thumb. Figure 2 shows an example of one Unit-level Understanding Goal from each of two consecutive units to illustrate how Unit-level Understanding Goals relate to Overarching Goals, or Throughlines. Readers should notice two things in this figure.

First, Understanding Goals connect to each other. Think of them as the streams in a watershed. That is, Unit-level Understanding Goals feed information and concepts into Overarching Understanding Goals (Throughlines) much as tributaries feed the main river. Similarly, goals for

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Figure 1: Throughlines (Overarching Understanding Goals)

1. A. How does land shape human culture?
   B. How do people think about the land?
   C. How do people change the land?

2. A. How do we find out the truth about things that happened long ago and/or far away?
   B. How do we see through bias in sources?

3. A. Why did some cultures colonize when other cultures didn't?
   B. What were the attitudes of different nations toward colonization?

4. A. What keeps peoples of different cultures from living/working successfully together?
   B. What helps overcome these difficulties?

5. How do we look at a culture?

6. How do we discover central themes?

7. How can you use multiple intelligences to approach your work?

8. How can you connect your personal interests/ passions/ideals to your schoolwork?

9. How do elements of story connect to make bigger meanings?

10. What are the strengths and limitations of different genres of writing?

11. How are people today affected by decisions and/or events from the Colonial Period? (Or, what can we learn, how can we benefit, from the study of history? Why does it matter?)

12. How does reflecting on your work and thinking help you understand?

From Lois Hetland's 7th Grade Classroom
Shady Hill School, 1993-94
Year-long Theme: Colonial America

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Figure 2: How Unit-level Understanding Goals feed into Overarching Understanding Goals (Throughlines)

Course: Our Colonial Past
(7th Grade Integrated History and English)

Throughline:

Question Form:

How can we find out the truth about things that happened long ago and far away?

Sentence Stem Form:

Students will understand and appreciate how history is an interpretive endeavor where truth is provisional, based on the analysis and credibility of a variety of sources that reflect the opinons of their authors and the values, conventions, and purposes of the times in which they were created.

Generative Topic: The Original English Colonies
(Topic explores the details of history and culture about each of the 13 colonies, individually and in regional groups.)

Unit-Long Understanding Goal

Question Form:
How can I learn and tell the story of my colony?

Sentence Stem Form:
Students will understand and appreciate how different stories can be told about a colony, depending on which facts historians select from which sources, and from how they interpret and organize those facts.

Generative Topic: Colonial Biographies
(Topic explores the structures and value of biography as an historical source.)

Unit-Long Understanding Goal

Question Form:
How can biographies help us to understand Colonial times?

Sentence Stem Form:
Students will understand and appreciate the potential and limitations of the genre of biography for the study of Colonial history.

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specific lessons or skills, such as note-taking or finding sources, feed into Unit-level Understanding Goals.

Second, Understanding Goals can be stated in two forms. In developing the sentence stem form (Students will understand and appreciate...), teachers focus on clarifying precisely the understanding that they want students to retain and use. The open-ended question form, on the other hand, seems to make more sense to students and engages them naturally in a dialogue about understanding. I found that working back and forth between the forms while planning helped me to clarify my intentions for my students' learning. Both forms reminded me of my priorities during the teaching itself.

That is the main point of Understanding Goals: to focus learning intentionally. Do not confuse them, as I did at first, with behavioral objectives, which in their effort to measure reduce our complex hopes for students to simplistic, quantifiable responses. In contrast, Understanding Goals serve as a system of bridges between a vast conceptual world of reflective thought and an equally complex one of practical activity and exploration; they help teachers see connections as they are planning instruction and help students make those connections as they construct their learning. Because classroom time is short, we cannot teach everything--we have to choose. Understanding Goals remind us to choose carefully from the richness of the Generative Topic, during both planning and instruction, so that we pursue what we really mean to accomplish. When we make such choices, it is only fair to let students know what they are. We need to tell students the purposes of what we are asking them to do so that they can join in defining and pursuing the central agenda.

II. Using Understanding Goals: One Teacher's Story

This section describes how I began using Understanding Goals in my classroom. The simple answer is--reluctantly. The tradition of teaching that nurtured me--the progressive tradition of John Dewey and Francis Parker and the British Infant Day Schools--did not seem particularly sympathetic to explicitness or goals. Why? Perhaps because the progressive educators I know stress teaching's art more than its science. Teaching, in my interpretation of this point of view, participates in the mystery of being human and cannot be reduced and controlled as laboratory science and research can. Any attempt to do so misses something essential that must be preserved if we mean to foster true learning.

Fundamentally, if I may continue with the polemic of my teaching roots, the magic of teaching and learning exists in relationships--between students and teachers, students and other students, students and materials, students and ideas. Fundamentally, teaching and learning are not simple and cannot and should not be designed around something as linear, unidirectional, and atomistic as behavioral objectives--which is what I initially thought Understanding Goals were. But I was wrong.

A. The Initial Approach (Avoidance)

When I first read, talked, and reflected on Teaching for Understanding, I avoided Understanding Goals consciously. My only model of becoming intentional was the behavioral objectives I had been forced to use in some methods courses when I was being certified to teach twenty years ago. At that time, I found them too limiting to promote the kind of deep inquiry I valued, so I had largely abdicated responsibility for defining learning goals. My feeling was that it was much more important to provide rich materials about fascinating topics and help students to engage thoughtfully with them over time. In this way, students would learn.

And they did. They learned. Something. Many things. But what they were learning was a bit vague. At some level, I felt that I had reached an inadequate compromise, but I did not allow myself to puzzle about the dilemma too much. I was busy teaching, and students, parents, and administrators were happy. Nothing seemed to be broken, so I was not going to invest effort in fixing anything.

As a result, when I began to use TfU, I focused on Ongoing Assessment, not Understanding Goals. Initially, I saw Generative Topics and Understanding Performances as versions of what I already did, but I felt that my assessment was inadequate. So, I began to attend to that, developing portfolios and reflections and working collaboratively with my students on identifying explicit public criteria for assessing the quality of their work. But there was a flaw in my plan: I had not specified to anyone--to myself, to my students, to their parents, or to the administration--just what I wanted my students to develop an understanding of. I did not know WHY what I was teaching was important--to my students' current lives, to their futures, to me, to their parents, or to our society. What, specifically, was worth the time and effort it would take to understand deeply?

There I was, despite my assiduous efforts at avoidance, flat up against the question of Understanding Goals. What did I want my students to understand, and how would I judge which Understanding Goals were important enough to select? I began to see, as I watched my teaching reflectively, that I did have purposes, intentions, hopes--but they were implicit. I began to feel that I was not being fair to my students: if I did not tell them what I wanted them to understand, would not we all waste a great deal of energy? I had been telling myself that I was trying to protect creativity, but I was only considering the part of the definition of creativity that focused on novelty--not the part that stressed adaptation (Perkins, *The Mind's Best Work,* 1981). If I really wanted my students to think creatively, I needed to focus their invention on an outcome--on producing adaptations that would serve some end. The end I chose was the end of understanding themselves through the disciplines I was assigned to teach, history and English.

B. Defining My Explicit Understanding Goals

I struggled to define Understanding Goals, and it was not easy. I began a simultaneous, four-pronged process of reflection and conversation that approached the problem of Understanding Goals from four directions.

1) I analyzed lessons and projects that, intuitively, I felt worked. What did I value in them? I watched myself closely. What did I ask my students to do? What about those things mattered? What was I hoping the students would take from them?

2) I looked at students' work for what I thought approached quality. What indications were there that the students were moving toward or achieving something I valued as expertise? As understanding?

3) I began conversations about the disciplines of history and English with everyone who would tolerate it, some of whom were experts in history or English. I talked to my husband, fellow teachers, friends and their spouses, parents of students I taught, and my research collaborator, among others. I audited some courses at Harvard's Extension School, too, so that I would have access to conversations with experts.

4) I looked at expert sources and models, culling standards. I read the prefaces and introductions to history books and literature collections, scouring sources for authors' opinions about the point of their work.

For me, the process took over a year, during which time I came to find, gradually, that I could be more explicit about my intentions--about what I wanted my students to understand. I worked with each of the six Generative Topics I taught to discover why I valued them enough to teach them and how disciplinary experts might emphasize slightly different aspects of them. After I articulated a set of draft Understanding Goals for each unit, I compared them across units. To my delight, I discovered that there was coherence in my Understanding Goals--many of them recurred, in slightly different forms, from one unit to the next, and some recurred across disciplines.

For example, in history, I taught units around six Generative Topics--the World in 1492, Pre-contact America, Renaissance Italy, the Original English Colonies, Colonial Biography, and the American Revolution. Each unit focused on helping students understand how to interpret information from multiple sources that offered a range of points of view. Each of these units also focused on interpreting the relationship between cultural ideologies and the society's adaptations to and uses of the lands they inhabited. In reading the historical fiction that served as entry-points to each topic, we focused on identifying the relationships among different elements of story--e.g., character, plot, setting, style or tone--and how these contributed to our interpretations of the books' themes. Similarly, I asked students to focus on themselves--how they learned, how they used reflection, what they cared about, how able they were to link those passions to school work, and how those factors contributed to interpretations they made of history, of literature, of their daily lives.

In each case, we compared and contrasted multiple examples, focusing on those that conflicted and making our own interpretations based on the evidence at hand. Clearly, I had a central purpose of helping students to find and evaluate evidence to form valid interpretations, along with other, more specific disciplinary purposes, as well. There were things that I sincerely cared that students understood. I had uncovered some of my implicit Understanding Goals, buried within the Generative Topics of the units.

By the end of the summer following my first year working with TfU, I had identified Understanding Goals for individual units, and I was confident that I knew what my overarching goals were--but I still had not stated them to myself or my students. It was not until October of my second year using the TfU framework that I was finally able to articulate, imperfectly but somewhat cogently, my Overarching Understanding Goals, my Throughlines (see Figure 1). I produced ten at first, within a month added an eleventh question and sub-questions to two others, and in March, added a twelfth.

I am certain that twelve is too many--I think six would be about right. I am also certain that some of them are badly worded--number eleven, for example, which really asks students to consider the relation of the past to the present and future, or why history matters. But at the time, they were the best I could do. Later, after I had left the classroom, I re-analyzed these Throughlines using the four Dimensions of Understanding, listed on a rubric defined late in the Teaching for Understanding research: Knowledge, Methods, Purposes, and Forms (see Figure 3, The Dimensions of Understanding). My best Throughlines focused attention on helping students develop understanding of each dimension. Taken together, they represented a web of understanding defined by the dimensions that tied together history, English, and the learner's development.

C. Making My Understanding Goals Public

Having explicitly identified what I felt was most important for students to learn, I had to face the fact that the framework recommended making these public. In my by now confirmed style, I found myself avoiding this aspect of Understanding Goals, too. In part, that is because I appreciate the process of inquiry--and genuine inquiry seemed to me to be antithetical to telling students what the answers were from the start. But stating the goals as questions for the students had really solved that already. In honesty, I think I was reluctant to make my goals public because I was frightened of judgment and criticism. It felt like exposing myself more than I wanted to. It felt like a risk.

Nevertheless, my research partner kept nudging, and I finally wrote the Throughlines on construction paper and put them up in the front of the room, where they stayed all year. When my students returned from their math class, they asked what those questions were. I told them that they were what I thought the year was all about. They were what we were trying to get smarter about this year. "If you see connections, say so. If I do, I'll say so." I also admitted my lack of certainty and satisfaction and referred to the questions as my best draft. "If these aren't right and we figure out something better, we'll

Figure 3: Making Understanding Goals Comprehensive: The Dimensions of Understanding

KNOWLEDGE	METHODS	PURPOSES	FORMS
A. Transformed intuitive beliefs To what degree do students' performances show that warranted theories and concepts in the domain have transformed their intuitive beliefs?	**A. Healthy skepticism** To what degree do students display a healthy skepticism towards their own beliefs, the knowledge presented in their textbooks, people's opinions, messages in the media, etc.?	**A. Dynamic interaction between action and reflection.** To what degree do students show evidence of becoming on-going reflective practitioners in the domain using what they learn to interpret and act upon their experience, as well as using their experience to look critically at what they learn?	**A. Mastery of Genres or types of performances** To what degree do students display mastery of the genres of performances they engage in (e.g. writing reports, giving presentations, preparing the stage for a play)?
B. Coherent and rich conceptual webs To what degree are students able to reason within frameworks, narratives or richly organized conceptual webs that are valued in the domain? To what degree are students able to move flexibly between details and overviews, examples and generalizations, local and global theories?	**B. Use of Methods and procedures for building knowledge in the domain.** To what degree do students use strategies, methods, techniques and procedures to build reliable knowledge similar to those used by professional practitioners in the domain?	**B. Awareness of the purposes of knowledge** To what degree do students see essential questions, purposes and interests that drive inquiry in the domain?	**B. Effective use of symbol systems** To what degree do students explore different symbol systems effectively and creatively to represent their knowledge (using analogies and metaphors, colors and shapes, movements)?
	C. Use of criteria for validating knowledge in the domain. How do students argue for or against a given position? Are "truth", "good" and "beauty" dependent on authoritative assertions or rather on publicly agreed upon criteria like the use of systematic methods, the ability to provide rational arguments, weave coherent explanations, or negotiate meanings through honest dialog)	**C. Multiple uses of knowledge and their consequences.** To what degree do students recognize a variety of possible uses of what they learn? To what degre do students consider the consequences of using this knowledge?	**C. Consideration of audience and context** To what degree do students' performances show an awareness of their audience (interests, needs, ages or sauce-economic, cultural backgrounds or expertise). To what degree do they show awareness of the situation in which communication happens? To what degree are students alert to possible miscommunications i.e. to possible misunderstanding especially when talking to people of other?
		D. Ownership and autonomy To what degree do students evidence ownership and autonomy to use they know . To what degree do they elicit evidence of their intellectual, aesthetic and moral growth? To what degree have students developed a personal position around what they learn?	

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change them." (I have wondered if confessing my concerns about the questions to my students helped them to glimpse the real meaning I intended but had not articulated yet? It also modeled the value of sharing unfinished drafts. In any event, I would do it again, because I believe that it contributed to the students developing a sense that the Throughlines were as much theirs as mine.)

We went over the questions briefly, and I asked students to write their tentative answers to them. Most said, "I don't know," or "I don't get it." One student, in response to a Throughline about using multiple intelligences, said, "I don't get it. How can you multiply intelligence?" These initial responses later served as useful comparisons when understandings and responses to the questions deepened over the year.

D. Using Understanding Goals During the Year

Defining and posting the Throughlines was not enough, however. We had to use them regularly throughout the year if the concepts they represented were to be internalized as living ideas for the students. We used them in three ways:

1) I used them in planning Understanding Performances. As I revised old activities, lectures, and projects, I kept asking myself which Understanding Goals they were developing and demonstrating. Then I consciously worked to focus the plan more closely on what I most wanted students to understand.

2) My students and I also used them "in the moment" of learning and teaching. During conversations with individuals, small groups, or the whole class, both students and I used them to reorient our thinking and to connect spontaneous activities and ideas to broader conceptual agendas, namely, our intentions for learning. When a teachable moment came up, it was easier to recognize whether it was tangential or promising, because the Understanding Goals served as guide-posts for those decisions.

3) We also used the Understanding Goals in planning, doing, and analyzing assessments. We reflected on what we were doing--orally, in drawing, in movement, and in writing--in relation to the Understanding Goals. Students participated in informal reflections regularly, more specific reflections in unit-level assessments of final projects, and three formal Throughline reflections across the year. Figure 4 illustrates sample responses from students reflecting on Throughline questions.

It occurred to me only when the school year was over that I could have asked students to make selections for their portfolios based on various Throughlines. "Make a selection to demonstrate your deep understanding of two questions: 'How can we find out the truth about things that happened long ago and far away,' and another Throughline of your choice. Write a reflection explaining your choices and why you think that they show understanding." I feel certain that more ways to use them would emerge with each year of working with Throughlines.

Figure 4: Ongoing Assessment--Examples of Students' Reflections on Throughlines

A response from a student journal connecting an Understanding Performance and the Throughline, "How can we know the truth about things that happened long ago and far away?"

> 11/6 On page 81 when Mink is talking with Rain Dove, he talks a lot about truth, perspectives and how to look at things to find the truth. Today what we were doing with the still life thing and when we were discussing whether you could reconstruct the still life is a lot like what Mink was talking about, only not quite so deep.
>
> One way they were the same was the thing Mink was talking about with looking from the center of the circle and the discussion we had at the end. To reconstruct the still life we would need a picture of it from all sides. But in order to understand it we would need to look at it from the middle to see all sides at once and how they fit together.

A mid-year response to Throughline #2, "How can we find out the truth about things that happened long ago and far away?"

> 3/8 In order to find out about things long ago or far away we must do many things. We must have many different sources, we must not listen to our biases, we must check the credibility of the source that we use. The more sources that we use the better chance we have of valid information. Also we can compare sources. Many sources is essential. It is very important to not listen to our own biases. Though we may not admit that we have any biases, everyone has biases. We must try to forget our biases. The credibility of the source is key. [It doesn't] matter how many sources we have if they are not credible. As we are biased, so are our sources. If a source is racist or <u>too biased</u> it is not a good source. I underline "<u>too biased</u>" because no source cannot be biased. Anything that they decide to include and not include is biased. Though we can never find the real truth, we can come close. What is truth? If there is always bias then there is no one truth in history, only in math.

A mid-year response to Throughline #3: "Why did some cultures colonize where others didn't?"

> 3/8 I think the reason Europeans colonized while other countries didn't is because they were an industrial society who wanted to expand their culture to make more money and have more resources of which they were low on. They also had the technology to build the ships and keep everything running smoothly. In my research I found that New Hampshire was a great source of granite, trees, furs, and fish. England used this to their advantage by making a chain where the colonists of New Hampshire shipped the goods to other colonies in the Caribbean. Their ship would get filled up with salt and sugar and other products England wanted or needed and in the Caribbean then would be sailed to England then back to New Hampshire. This idea of colonization was wonderful for the Europeans because they always came out on top (until the Revolution).

III. The Gains of Using Understanding Goals

Articulating, posting, and using Understanding Goals all took attention and effort. One might well ask why those expenditures were worth it. What did we gain from Understanding Goals?

A. Focusing Effort

First, I felt that we gave more attention to what I believed was most important to teach. When students engage deeply in creative, constructive work, they and I are riveted by details and other glorious distractions that take us on tangents. It is difficult to remember what the big point is among all the exciting little points and personal relationships. Understanding Goals guided our path.

B. Consensus and a Shared Endeavor

We also gained group agreement about the business of the class. I was not the only one trying to find our way. I knew where we were going, but so did students, parents, and colleagues, including student teachers. Everyone helped by continually reorienting our prow toward the intended shore.

C. Coherence within Units

Each unit had an explicit central thrust. Students explored novel and personally meaningful variations on the Generative Topic while contributing to a central group endeavor represented by the Understanding Goals.

D. Coherence Across the Year

As we progressed through the Generative Topics of the year, the Throughlines, especially, lent a clear developmental focus to all we did. This let the students, me, other teachers, and parents all see the students' growth more clearly.

E. Evidence that Understanding Goals Helped

Even in their raw form, these questions seemed to make a profound difference in how my classroom operated and in what my students were able to articulate about their own learning. The evidence that convinced me of these conclusions came from three basic sources:

1) Parents. Many parents commented spontaneously that the Understanding Goals helped them to understand what their children were working toward and helped them talk to their children and to me about projects and learning.

2) My own planning efforts and reflections. I noticed how often I used the Understanding Goals diagnostically, as tools to assess both my lesson designs and students' work. Although I had worried that Understanding Goals would limit my students' creativity, I was surprised to find that, if anything, I found their work to be more creative when we had the clarity of Understanding Goals to guide our inquiry.

3) Most compelling were the students' own expressions of satisfaction and achievement--they spontaneously tied their feelings of success to the Throughlines (the most visible Understanding Goals). As we used them over and over throughout the year, students came to think of them as their own. By the end of the year, they assured me that the Throughlines were the most important difference in how they had learned this year compared to other years. This anecdote should show what I mean.

Near the end of the school year, we were planning a final field trip to walk the Freedom Trail. We were clarifying how much independence students would have during lunch at Quincy Market--a subject in which they were heavily invested. But in the middle of it, a student asked, "Hey, Mrs. Hetland, when are we going to have that conversation about the Throughlines?" I had not realized that we were going to have such a conversation, but a general clamor around the room indicated that now might be an appropriate moment. "What do you want to say?" I asked. Here are their collective answers, synthesized from the notes I took during the discussion.

> The Throughlines were what made the difference. Every year we do fun things--great projects and cool stuff. But we haven't always known why. This year we did. Or if we didn't, we knew there was a reason, so we'd look up at the Throughlines and try to figure it out. And if we couldn't, we could ask someone, or you, or even talk to our parents about it. So we could see how everything made a difference, because we always knew why we were doing what we were doing. They're really important, and you should tell other teachers about them.

This paper is my attempt to follow my students' instructions. For me, Overarching Understanding Goals were the most profound tool the framework offered for refining my teaching so that students had a better chance of understanding. They helped me to justify the time I needed to devote to specific Generative Topics, because I knew I was aiming for understanding and not coverage. They helped me to use "teachable moments" toward purposeful ends, which aided me in personalizing my teaching toward individual needs. They helped me design instruction so that students would be more likely to confront misconceptions and move toward richer webs of knowledge that they could employ flexibly in novel situations. Finally, they helped me explain and share the authority and responsibility for learning with my students, with their parents, with apprentice teachers, and with my colleagues. Understanding Goals gave us all a sense of shared purposefulness that allowed us individual freedom to explore.

We always knew why.

Addendum

I want to add just one more thought about learning to teach for understanding. It is well expressed by this anonymous children's poem.

A centipede was happy quite
Until a frog in fun,
Said, "Pray, which leg comes after which?"
This raised her mind to such a pitch,
She lay distracted in a ditch
Considering how to run.

TfU was difficult to learn, and at times, I felt confused by it and ineffective, despite the fact that I had been teaching--or, as the metaphor would have it, running--effectively for 15 years. Those fun frogs over at the Harvard Graduate School of Education had presented me with a profound challenge that, for a time, left me stranded in a ditch. I am not sure anyone else noticed, but in the face of TfU, I certainly felt like the centipede. For me, Understanding Goals, in particular, left me with my feet in the air. For other teachers, another element of the framework might be the trip-wire, but for me, it was Understanding Goals.

But I did not add this addendum to frighten anyone off. The message with which I want to end is that feeling like a centipede in a ditch is far from all bad, and it may even be necessary if excellent teachers are going to refine their practices. What originally tripped me up ended up being the element of my teaching that my students and I most prized. Learning something new means questioning those things we do well automatically. It means questioning our tacit expertise. In doing so, we may stumble a bit for awhile, because those are complex motions that we are coordinating in the art of our teaching. When we really look at them, they seem impossible to do, and we falter in the face of their complexity. But, during those pauses in ditches, we can begin to see places to make adjustments. In my case, the legs were running pretty well, but it was not clear where the beast was going. As I got clearer about the destination, I was able to refine the ways each leg moved, until I could use my legs automatically once again.

I still reflect on my teaching and my goals, but the time I spend on my back waving my legs in consternation seems shorter. Or maybe I just feel less panicked about turning over--I know how to right myself. I know how to get running again, and I know the value of the time in the ditch. I hope teachers will not shy away from the deep reflection about their teaching that the Teaching for Understanding framework compels, because it is the willingness to risk some clumsy movements that allows us to become explicit and intentional about what we do. And that, as far as I can tell, is how we can best honor the mystery of learning in our teaching.